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PATENT



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Technology Center 2100

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants

John O. Moody et al.

Serial No.

09/740,418

Filing Date

December 19, 2000

For

APPARATUS AND METHOD FOR CONTROLLING ALLOCATION OF RESOURCES AND TASK

EXECUTION

Group Art Unit

2127

Examiner

Anh T. Nguyen

Attorney Docket No.

LM(F) 4878

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

- 1. Pursuant to 37 CFR \$1.97 and \$1.98, and in compliance with CFR \$1.56, the Office's attention is directed to the patents, pending applications, publications and other information listed on the attached PTO-1449. Copies of listed foreign patents and other listed publications are No copies of the listed U.S. patents and U.S. patent applications are enclosed. Applicant(s) make no admission that the enclosed documents are prior art to the present invention.
- 2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a corresponding U.S. Patent is enclosed or a concise explanation of the relevance of the document is set forth on an attached sheet, or a copy of an English-language search report is attached.

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3.				CFR hecke	\$1.97(b) this Statement is being filed d):						
	(a)				months of the filing date or ntry into the National Stage.						
	(b)				e mailing date of a first tion on the merits.						
	(c)		§1.9 a fi acti	7(b) 1 nal a	period set forth in 37 CFR but before the mailing date of either ction or a notice of allowance, or an at otherwise closes prosecution in the on.						
			1)		A certification is given below,						
			2)		Enclosed is a check covering the fee (\$180.00) set forth in \$1.17(p) for consideration of this Statement, or						
			3)		Charge the fee set forth in 37 CFR \$1.17(p) to Deposit Account No. 20-0090.						
	(d)		fina befo requ	l act re pa ired	mailing date of either a ion or a notice of allowance, but yment of the issue fee. The certification and fee is below.						
			1)		Enclosed is a check covering the fee set forth in 37 CFR §1.17(p) \$180, or						
			2)		Charge the fee set forth in 37 CFR \$1.17(p) to Deposit Account No. 20-0090.						
4.	Cert	ifica	tion	(if a	oplicable):						
	(a)		The undersigned hereby certifies that each item of information contained in this Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.								

- The undersigned hereby certifies that no item of information contained in this statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the undersigned's knowledge after making the undersigned's knowledge after making reasonable inquiry no item of information contained in the Statement was known to any individual designated in 37 CFR \$1.56(c) more than 3 months prior to the filing of this Statement.
- 5. The Commissioner is hereby authorized to charge any additional fees, fees underpaid, or credit any overpayment with regard to this Statement to Deposit Account No. 20-0090.
- 6. Concise Explanation (if needed):
 - (1) Below is a Concise Statement of
 Relevance of enclosed non-English language
 document(s).

DOCUMENTS

- [1] D. P. Bertsekas, "The Auction Algorithm: A Distributed Relaxation Method for the Assignment Problem", Annals of Operations Research 14 (1988) 105-123
- [2] D. Chen, R. Szczerba, and J. Urhan Jr. "A Framed-Quadtree Approach for Determining Euclidean Shortest Paths in a 2-D Environment," IEEE Transactions on Robotics and Automation, vol. 13, no. 5, pp. 668-681, October 1997.
- [3] O. E. Drummond, D. A. Castanon, M. S. Bellovin, "Comparison of 2-D Assignment Algorithms for Sparse, Rectangular, Floating Point, Cost Matrices, Journal of the SDI Panels on Tracking, Institute for Defense Analyses, Alexandria, VA, 15 Dec. 1990
- [4] L. Holloway, B. Krogh, and A. Giua, "A Survey of Petri Net Methods for Controlled Discrete Event Systems", Discrete Event Dynamic Systems: Theory and Applications, vol. 7, no. 2, pp. 151-190, April, 1997.
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- [6] H. W. Kuhn, "The Hungarian Method for the Assignment Problem", Naval Research Logistics Quarterly 2 (1955) 83-97
- [7] J. Moody and P. Antsaklis, "Petri Net Supervisors for DES with Uncontrollable And Unobservable Transitions", IEEE Transactions on Automatic Control, Vol. 45, No. 3, March 2000
- [8] T. Murata, "Petri Nets: Properties, Analysis, and Applications", Proceedings of the IEEE, vol. 77, no. 4, pp. 541-580, 1989

[9] A. B. Poore, N. Rijavec, M. Liggins, V. C. Vannicola, "Data Association Problems Posed as Multidimensional Assignment Problems: Problem Formulation", SPIE Proceedings, Vol 1954 (1993) 552-563

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Respectfully submitted,

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Reg. No. 44,460

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